Save Money And Energy

Bright Ideas For Safe And Efficient Computing

BY KEVIN SAVETZ

In the face of the growing awareness of energy and environmental conservation, it may seem as though your office generates an endless stream of waste paper, consumes growing amounts of energy, and throws away unmanageable quantities of office accessories, such as toner cartridges.

Whether at your workplace or home office, it requires only a few simple changes to help the environment and save money. With a little thought and pre-planning, your computer—and the way you use it—can save energy, time, and hassles.

Keeping in mind how you use power, paper, toner, and other resources, the following tips can make your computer—and your office—more eco-friendly and energy-conserving.

USE PAPER WISELY

It's easy to save paper and money when printing and photocopying. Reuse the blank back side of botched copies and printouts when you print out drafts. This can cut your paper consumption by up to half. Spellcheck and proofread your work on-screen before you print. If you use cloth ribbons in your dot-matrix printer, have them re-inked instead of replaced. It's cheaper and the printouts look better. Recycle toner cartridges from your laser printer and photocopier. Recycled carts cost half of new ones, and save landfill space. Buy recycled paper, envelopes, and labels.

Check what you are really getting before you buy recycled paper for your printer or photocopier. Not all papers in a "recycled" product line are actually made from recycled paper—some bright white and colored papers are made with virgin pulp. To be truly eco-friendly, find paper with a high percentage of "post-consumer waste," waste that has been used and recycled. "Pre-consumer waste" may mean virgin scrap—unused paper and wood left over from another manufacturing process.

Despite the fact that the computers let us edit documents on-screen before printing the final version, few people do that. Instead, we print each draft and revision, wasting toner and paper. A software product for the Macintosh called Toner Tuner, from Working Software, Inc. (408/423-5696), lets you print "light" but readable versions of your rough drafts, saving toner and money, and (hopefully) slowing the flood of used ink cartridges to the landfills. It works on most PostScript and non-PostScript printers.

Tired of Post-it notes and memos covering your desk? If the computers in your office aren't linked via a network, now is the time to do it. It will allow office workers to use electronic mail for inter-office correspondence, which again will save time, paper, and money. In 1992, American offices generated more than 775 billion pages of paper—that equals 14 million tons of paper, or 238 million trees.

Instead of taking the time to print a letter then loading an envelope into the printer to print the address on it, consider using "windowed envelopes," which feature a hole though which (after you fold your letter) you can see the address. This saves the step of printing on the envelope, but it will take some trial and error to get the address to show through the window. Use envelopes with "empty" windows rather than clear plastic or cellophane covering, which can't be recycled.

SAVING ENERGY

More than forty million IBM-compatible computers are used by businesses each day in America. These, plus seven million laser printers, consume 18.2 billion kilowatt-hours of electricity per year. But the Environmental Protection Agency says that computers are actively used only about 20% of the time they are powered on.

Do you leave your computer equipment on at night? If you do, you should consider taking the time to power down your machines before going home. The useful life of your hardware will be increased if you keep it off when you're away for long periods of time. For instance, hard disk drives are rated with a "mean time before failure"—or the average amount of time it will run before something goes wrong. Hard drives spin even when you're not using them—by turning the computer off, you extend the active life of the components and save energy.

The same is true for laser printers and monitors—they consume lots of energy even when idle, so turn them off at night. On the other hand, computers generate heat—several in one room generate lots of it. Use this to your advantage when it's cold and keep the thermostat set low.

Does your computer sleep on the job? Nine computer makers, including IBM, Apple, and Hewlett Packard, are planning or have produced desktop computers that save energy by going into "sleep" mode when not in use. This is expected to cut computers' power consumption by half. "Sleep" modes became popular on laptop and notebook computers to conserve the batteries' power. A "sleeping" computer can be brought to full waking state—right where you left off, without the need to reboot—at the touch of a key.

POWER TRIPS

Unplugging your hardware from the power and phone lines during electrical storms or any time when the electrical system is stressed is the safest method—for instance, in the summer (when many air conditioners are in use) or when a heavy electric motor is plugged in nearby.

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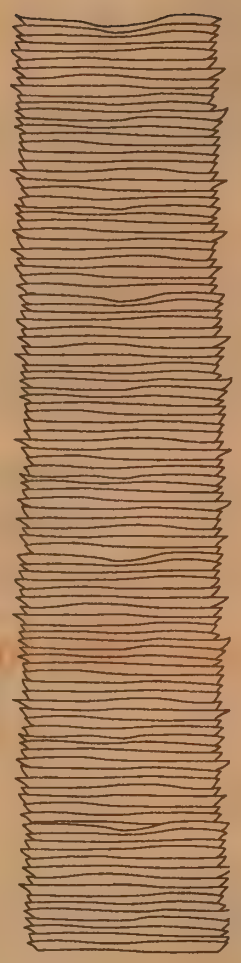

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To assure your computer equipment remains in tip-top shape, never plug any of it directly into the wall socket. Sometimes electrical power can be "dirty," meaning power surges, dropouts, and electrical spikes interrupt the regular flow of electricity to your computer. Instead, use a surge protector, a relatively inexpensive device that sits between your computer and the wall. A regulator helps remove power dips and spikes, and a fuse will protect your equipment from extreme power surges (which can be caused, for example, by a nearby lightning strike). Unprotected power "spikes" can reduce computer equipment to a smoldering paper weight. It's a small price to pay for a safer computer.

It's equally important to plug modems and fax machines into protected phone line plugs. A bolt of lightning can hit a telephone line, sending an unfortunate number of volts down the wire, frying your telephones, modems, and fax machines.

Although surge protectors work wonders to limit the effects of power spikes on your hardware, they can't help you when the power goes out. "Brownouts" (brief power drop-outs) and "blackouts" (longer periods of powerlessness) cause computers to shut down—and all your unsaved work disappears forever. If this is a problem in your area, consider an uninterruptable power supply (UPS), a device that switches your computer to battery backup should the power fail. Inexpensive ones (from $200) will give you enough continuous power to save your work and shut down; more expensive ones can keep you online for hours.

All electrical outlets deliver a specific wattage of electricity. Typical wall outlets deliver 1800 watts. Although you may be able to plug a dozen electrical appliances and computers into a single outlet using extension cords or surge protectors, be sure you don't exert a wattage demand higher than that circuit can handle. One computer alone (without monitor, printer, etc.) can use 100 to 250 watts of power. If you go overboard, a fuse or circuit breaker may blow.

OUT WITH THE OLD

Are you wondering what to do with that PC you no longer need? Or how to trash a "dead" computer? Don't throw them away—even the most ancient and decrepit computers can get a new lease on life from any of a dozen organizations that repair and distribute old PCs to schools, nonprofit organizations, and even citizens of other countries. One person's trash is truly another's treasure. For information, contact: American Computer Exchange, 1-800-786-0717; National Computer Exchange, (212)614-0700; Computer Recycling Center, (408)734-5030; Ecology Plus, (408)452-7717; National Cristina Foundation, (203)622-6000. ■

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